

BACHELOR OF SCIENCE CHEMISTRY

GENERAL EDUCATION Courses that are **required** are in bold type.

REQUIRED HOURS.....	48-49
Communication.....	8
ENGL 1113 English Composition I	
ENGL 1213 English Composition II	
COMM 1312 Basic Speech	
Mathematics.....	3
MATH 1143 Math Concepts	
MATH 1513 College Algebra OR a higher numbered math course	
Computer Applications/Technology.....	2
COMSC 1022 Computers & Information Access	
TECH 1122 Technology & Society	
Economics.....	3
ECONO 1113 Contemporary Economics	
Health & Physical Education.....	3
HPE R 1133 Wellness Concepts & Exercise Applications (includes 1 hr lab)	
Natural Sciences.....	8
BIOL 1004 Biological Concepts	
SCI 1514 Concepts of Physical Science*	
SCI 1614 Science & the Environment	
ASTRO 1904 Astronomy	
GEOL 1934 Physical Geology	
Fine Arts & Humanities.....	6
ART 1222 Art Survey	
LIT 2412 Introduction to Literature	
MUSIC 1012 Introduction to Music I	
PHILO 1452 Introduction to Philosophy	
U.S. History & Government.....	6
HIST 1063 U.S. History	
POLSC 1103 American Government & Politics	
International & Cultural Studies.....	6-7
HIST 1033 World History	
GEOG 1103 World Cultural Geography	
POLSC 1153 World Relations & Politics	
Foreign Language (4 hr/includes 3 hr class & 2 hr lab)	
Behavioral/Social Science.....	3
PSYCH 1003 General Psychology	
SOCIO 1003 Introduction to Sociology	

*Concepts of Physical Science may be satisfied by Gen. Chem. I (1203 & 1252) and Gen. Chem. II (1303 & 1352).

Chemistry Major (B.S.) Code No. 105

Required Courses.....	35-37
CHEM 1203 General Chemistry I	
CHEM 1252 General Chemistry I Lab	
CHEM 1303 General Chemistry II	
CHEM 1352 General Chemistry II Lab	
CHEM 3015 Organic Chemistry I	
CHEM 3124 Quantitative Analysis	
CHEM 4001-4 Chemistry Research (min 2 hrs)	
CHEM 4115 Organic Chemistry II	
CHEM 4234 Instrumental Analysis	
CHEM 4344 Physical Chemistry I	
CHEM 4901 Senior Seminar in Chemistry	

Students with 8 hours each of General and/or Organic Chemistry and changing majors to Chemistry may make up the hours by taking one of the chemistry electives below.

Electives and Advanced Chemistry.....	8
<i>At least 4 hours must be in chemistry.</i>	
CHEM 3234 Inorganic Chemistry	
*CHEM 3244 Environmental Chemistry with lab	
CHEM 4011-4 Sem in Chem Spec.Topics (when offered)	
CHEM 4124 Biochemistry	
CHEM 4223 Polymer Chemistry	
*CHEM 4254 Industrial Chem. and Environmental Regs.	
CHEM 4454 Physical Chemistry II	
CHEM 4554 Advanced Organic Spectroscopy	
CHEM 4673 Advanced Metabolism	
*MATH 3453 Statistics II	
MATH 4213 Differential Equations I	
PHY 3563 Thermodynamics	
<i>*Requirements for Specialization in Environmental Chemistry.</i>	

Secondary Requirements

Completion of these courses satisfies requirement for a math minor:

MATH 1613 College Trigonometry (1715 Coll. Alg. and Trig. will satisfy both GE & Chemistry secondary requirements)	
MATH 1834 Calculus I	
MATH 2834 Calculus II	
MATH 3834 Calculus III	
PHY 2145, 2155 preferred	

Specialization in Environmental Chemistry -- Students are advised to consider the following additional electives:

GEOG 4083 Environmental Studies	
MNGMT 3623 Risk Management	

Electives to bring total to..... 124

REGULATIONS PERTAINING TO GRADUATION

Minimum credit hours for graduation.....	124
Minimum credit hours in the liberal arts & sciences.....	55
Minimum credit hours in upper-division (3000/4000 courses).....	40
Minimum credit hours (3000/4000 courses) in major completed at SWOSU.....	8
Minimum credit hours at SWOSU (including last 8).....	30
Minimum Grade Point Average in all coursework.....	2.00
Minimum Grade Point Average in major.....	2.00
Minimum Grade Point Average in minor.....	2.00

CHEMISTRY (BS) - (CODE 105)
Suggested Course Sequence

FIRST YEAR		SECOND YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orient* 1	1303 Gen Chem II3	3015 Organic Chemistry I.....5	2145 Physics I..... 5
1203 Gen Chem I.....3	1352 Chem II Lab.....2	3124 Quantitative Analysis ..4	3834 Calculus III..... 4
1252 Chem I Lab2	1834 Calculus I4	Gen Educ Crse.....3	4115 Org Chem II 5
1715 College Alg/Trig.....5	1213 English Comp II.....3	2834 Calculus II.....4	Gen Educ Crse 2
1022 Comp & Info Access...2	Gen Educ Crses4	English Proficiency Exam**	
1113 English Comp I3			
Total: 16	Total: 16	Total:16	Total: 16

THIRD YEAR		FOURTH YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
2155 Physics II.....5	4234 Instru Analysis.....4	4901 Senior Sem in Chem1	Gen Educ Crses 8
4344 Physical Chemistry I...4	Gen Educ Crses7	4001 Research Seminar.....1	Chemistry Elective
Gen Educ Crses.....6	Chemistry Elective	Chemistry Elective	Free Elective
	Free Elective	Gen Educ Crse3	
		Free Elective	
		Free Elective	
Total: 15	Total: 15	Total:15	Total: 15

* First time entering Freshmen need to take 1001 Freshman Orientation

** If applicable. See English Proficiency Program under the General Academic Information Section.